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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,920	09/14/2000	Wilson Moya	MCA-474	9899
25182	7590	11/17/2004	EXAMINER	
MILLIPORE CORPORATION 290 CONCORD ROAD BILLERICA, MA 01821			VO, HAI	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/661,920

Applicant(s)

MOYA, WILSON

Examiner

Hai Vo

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,9 and 11-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,3,9 and 11-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

1. The amendment to claim 21 makes the claim clear and conform with the US Patent practice.
2. The art rejections over Pouletty et al (US 5,288,648) are withdrawn in view of the present amendment and response.
3. The art rejections over Moya et al (US 5,271,839) taken alone and in view of Wang et al (US 6,045,694) are maintained.
4. The double patenting rejections have been overcome by the submission of the terminal disclaimer.
5. The indicated allowability of claim 13 is withdrawn in view of Moya et al (US 5,271,839). Claim 13 should be rejected under 103 art rejections over Moya et al (US 5,271,839).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
7. Claims 2, 3, 9, 11, 12, 14-21, and 25 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Moya et al (US 5,271,839) substantially as set forth in the 06/02/2004 Office Action. Applicant argues that Moya teaches forming porous areas in a non-porous substrate while the present invention forms non-porous areas of collapsed and fused material in a porous substrate. However, the claims

do not recite exactly the way what Applicant argued. Nothing in the claims is specific about the non-porous areas being created in the porous substrate. The rest of the areas of the porous membrane remain porous throughout. The limitation "the non-porous areas comprise collapsed and fused material" simply means that no pores are found in the non-porous areas or that the non-porous areas comprise a solid material. Moya discloses the porous polymeric product comprises an intermediate layer of a non-porous material interposed between two surface layers comprising a patterned porous polymeric structure (column 6, lines 35-38). Therefore, the instant claims do not structurally distinguish the patterned porous filtration structure of the present invention structural differences from the patterned porous polymeric product of Moya. The patterned porous filtration structure of the presently claimed invention clearly does not exclude Moya as argued by Applicant. The examiner suggests that the processing steps may be incorporated into the claims to show how the present application structurally distinguished from the prior art to overcome the finding of anticipation. Accordingly, the art rejections are thus sustained.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moya et al (US 5,271,839). Moya does not specifically teach the areas of porous and non-porous materials varying from layer to layer. Moya teaches that the porous areas are characterized by having tortuous, random, non-directional pathways throughout the porous structure. The pathways can be open or closed as dependent upon the intended use of the product (column 6, lines 38-41). Moya also teaches the completely porous structure which is porous in selected areas of the surface can be used as filtration media while the composite structure having an interior non-porous layer can be used in nucleic acid blotting (column 6, lines 46-52). Thus, in the absence of the unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the areas of porous and non-porous material vary from layer to layer because such arrangement is dependent upon the intended use of the product and involves only routine skill in the art.
10. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moya et al (US 5,271,839) as applied to claim 2 above, in view of Wang et al (US 6,045,694) substantially as set forth in the 06/02/2004 Office Action. The same reasons set forth in the paragraph no. 2 are believed to be pertinent. Applicant further argues that the combination of the cited references fails to teach or suggest adding a surface modification to the pattern structure. The examiner disagrees. Moya does not specifically disclose the porous membrane having the surface to be coated with a hydrophilic coating. Wang, however, teaches the

filtration membrane suitable for wetting and positive charge modification to improve the retention of anionic dye (abstract). This is important to the expectation of successfully practicing the invention of Moya and thus suggesting the modification. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to treat the surface of the porous membrane as disclosed in the Moya reference with a wetting agent, followed by the positive charge modification motivated by the desire to improve the retention of anionic substances, thereby increasing the filtration efficiency. Accordingly, the art rejections are thus sustained.

11. The art rejections over Pouletty et al (US 5,288,648) have been overcome by the present amendment and response. Pouletty does not teach a porous filter wherein the non-porous areas comprise collapsed and fused material of the membrane.
12. The terminal disclaimer filed on 08/30/2004 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 6,627,291 has been reviewed and is accepted. The terminal disclaimer has been recorded. The double patenting rejections have been overcome by the terminal disclaimer.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-

1485. The examiner can normally be reached on M,T,Th, F, 7:00-4:30 and on alternating Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HV

Hai Vo

Tech Center 1700